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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/628,856 | 07/28/2003 | Jeanette E. O'Hara | GMC 0051 PA/40320.56 | 3844 |
| 7590 06/01/2005 | | | EXAMINER | |
| Killworth, Gottman, Hagan & Schaeff, L.L.P. | | | CAMERON, ERMA C | |
| Suite 500 | | | | |
| One Dayton Centre | | | ART UNIT | PAPER NUMBER |
| Dayton, OH 45402-2023 | | | 1762 | |
| | | | DATE MAILED: 06/01/2005 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|--|--|--|--|--|--|
| | 10/628,856 | O'HARA ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Erma Cameron | 1762 | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | 6(a). In no event, however, may a reply be tim within the statutory minimum of thirty (30) days ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | nely filed s will be considered timely. the mailing date of this communication. D. (35 U.S.C. & 133) | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on | _• | | | | | |
| 2a) ☐ This action is FINAL . 2b) ☑ This | | | | | | |
| 3) Since this application is in condition for allowan | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4)⊠ Claim(s) <u>1-38</u> is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) 34-38 is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| | 6) Claim(s) <u>1-33</u> is/are rejected. | | | | | |
| 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or | election requirement. | | | | | |
| Application Papers | | , | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | |
| 11)☐ The oath or declaration is objected to by the Ex | aminer. Note the attached Office | Action or form PTO-152. | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: | | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| | | | | | | |
| Am at a second | | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) | A) 🗖 1-4 | (DTO 442) | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date | | | | | | |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date | 5) 🔲 Notice of Informal Pa | atent Application (PTO-152) | | | | |
| S. Patent and Trademark Office | 6) | | | | | |

DETAILED ACTION

Election/Restrictions

1. Claims 34-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made without traverse in the reply filed on 5/5/2005.

Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 3. Claims 1-24 and 26-32 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for <u>a process using solvent to apply the coating</u>, does not reasonably provide enablement for <u>a process that does not use a solvent in the coating process</u>. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

See, for instance, pages 2 and 5. It appears that a solvent is required for the coating operation.

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4. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the

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written description requirement. The claim(s) contains subject matter which was not described

in the specification in such a way as to reasonably convey to one skilled in the relevant art that

the inventor(s), at the time the application was filed, had possession of the claimed invention.

The examiner cannot find in the specification as originally filed a statement that the

heating to decompose the pore forming agent is above room temperature.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

a) Claim 1 and 33: it is not clear why regions outside is in the plural. Is more than one region

required?

b) Claims 7, 25 and 33 (2 X): should be put into Markush terminology – selected from the group

consisting of.

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- c) Claims 16 and 17: it is not clear what is meant by "decomposition comprises...component".

 Decomposition is a process, and so it is not clear what is meant by a process comprising physical materials.
- d) Claim 19: 0 wt% of pore forming agent contradicts claim 1 which requires that the agent be present.
- e) Claim 21: <u>substantially increase</u> is vague in that the amount of increase is not specified.

Allowable Subject Matter

- 7. Claims 1 and 33 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
- 8. Claims 2-32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
- 9. The following is a statement of reasons for the indication of allowable subject matter:

 The prior art does not disclose nor suggest the combination of using a porous fibrous

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carbonaceous and electrically conductive substrate and the process for forming a porous layer on the substrate as detailed in claims 1 and 33.

Conclusion

- 10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ERMA CAMERON
PRIMARY EXAMINER

Erma Cameron Primary Examiner Art Unit 1762

May 30, 2005